

REMARKS

The comments of the applicant below are each preceded by related comments of the examiner (in small, bold type).

Specification

5. The disclosure is objected to because of the following informalities:
The applicants supplied Appendix C on CD-ROM in PDF format as noted on page 3 of their Remarks (applicants' page #117). However, 37 CFR 1.96(c) requires such materials to be in an ASCII format. Related ASCII formats (i.e. – most "text" (.txt) formats, Rich Text (.RTF), etc.) would suffice as alternatives. However, the Examiner does not have authority to waive the requirements of this rule and accept non-ASCII data formats. The applicant would need to file a petition under 37 CFR 1.183 to request a waiver or suspension of the rules.

The code submitted on [date] as appendix C was inadvertently the wrong code listing.

The applicant intends to submit the correct code listing (corresponding to the one originally filed as microfiche) in Adobe Portable Document Format provided that its Petition Under 37 C.F.R. § 1.183 to Permit Submission of a Computer Listing in Adobe Portable Document Format (copy attached) is granted..

Claims

6. Claim 21 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for adding speech recognition to a computer, does not reasonably provide enablement for the details of a computer's operating system. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.
The "event queue" in particular is not shown in any drawing nor are any details in the specification provided about how the invention modifies the operating system as presented in claim 21.

The applicant respectfully disagrees. Claim 21 has been amended. Claim 21 does not state that the operating system is *modified* to include an event queue; it merely requires "an

operating system **including** an event queue.” Furthermore, the claim’s recitation of a converter “delivering said input to said event queue” is fully supported in the specification. For example, in paragraph 48, the specification states:

The operating system maintains an event queue (not shown); **input devices** such as the mouse 134 or the keyboard 136 **“post” events to this queue** to cause the operating system to, for example, create the appropriate text entry, or trigger a mouse movement.

(emphasis added). Based on this disclosure, a person having ordinary skill in the art would have understood how to “deliver[] said input to said event queue,” as claimed in amended claim 21.

8. Claims 15-19, 21-25 are rejected under 365 U.S.C. § 103 as being unpatentable over Hansen (4,776,016).

As per claims 15, 17, 18, 22 and 23, Hansen teaches “a voice user interface” (see his adaptable control system, abstract and figures):
“recognizing a voiced utterance” (his voice recognition systems, col. 5, line 11);
“converting said voiced utterance into a command string including a command simulating a mouse function” (suggested by his disclosed ability to move the cursor on the display through the use of voice commands, cursor control inputs or both. The cursor control inputs include cursor control button, the mouse, the digitizer, etc., col. 5, lines 26-33 – see also col. 6, lines 14, 42-46 and figures 1-2 – while the Hansen does not explicitly state that he is simulating a mouse function he does explicitly state that a user may use keys...to move the cursor on the computer screen . . . or, if the user desires, the user may utilize voice commands via the microphone 33 to perform these functions – since he also teaches the use of a mouse as an alternative cursor control input, it would have been obvious to utilize or substitute verbal commands for similar cursor control functionality).

Claim 15 has been amended. Hansen does not disclose and would not have made obvious a system for use with a “computer having a graphical user interface” as required by amended claim 15. Hansen’s disclosure of a cursor refers to a **text cursor**, not to a “pointer indicating a graphical position on [a] display.” In Hanson, the user operates “existing computer disk operating systems **like MS DOS™.**” (Hanson, col. 4, lines 10-12, emphasis added.) MS-DOS™ is well-known to be a text-based operating system. Moreover, when Hanson describes “mov[ing] the **cursor** on the display,” he discloses that the user may use a “cursor control button.” (Hanson,

col. 5, lines 29-33.) Again, it is well-known that the cursor control buttons include the up-, down-, left-, and right-arrow keys on a computer keyboard, and, in MS-DOS™, control operation of a **text cursor**, not a graphical pointer.

Claims 17 and 18 require that the conversion vary “based on an evaluation of said voiced utterance **and on a state of [a] subsystem.**” In Hanson, the conversion is based only on sound input from a microphone. The conversion does not take into account a state of a subsystem. (*See* Hanson, Fig. 3, ref. 48, showing that the only input to the voice recognizer is the microphone.) Thus, Hanson does not disclose and would not have made obvious the claimed varying conversion.

Claim 22 requires that movement of an indicator “continu[e] unabated until stopped by an action of the user.” Hanson discloses movement of a text cursor to a specified location on the screen by means of a voice command. (Hanson, col. 11, line 65–col. 12, line 4). Hanson further suggests using a voice command to move a text cursor in place of a cursor control key, a mouse, or a digitizer. (Hanson, col. 5, lines 27-34.) In each of these examples, after the user takes an action, movement of an indicator stops, rather than continuing unabated. Hanson does not, therefore, describe or make obvious this claim limitation.

Claim 23 requires a “command simulating a mouse function in a *graphical user interface.*” As set forth above with respect to claim 15, Hanson does not disclose or render obvious a command in a graphical user interface. The system described in Hanson operates in a *text* user interface environment.

Claim 16: A "command string further comprises a command to said program" is redundant over the use of a "command" as noted under claim 15.

Claim 16 is patentable for at least the reasons set forth above with respect to claim 15.

Claim 16 has a distinct and narrower scope than claim 15.

Claims 24, 25: See claim 15 above. A set of representations that allow "mapping from a member of said set of internal representations to a member of said set of output strings" is taught by Hansen as noted above in that he stores templates that have the mappings that indicate how each voice command will be interpreted and output (see fig. 3, boxes 44 and 46).

In the applicant's claim 24, the internal representations are related to the set of output strings by a "multiple-to-one" mapping. For example, the specification discloses, at paragraphs 51-52, that the user may associate two different utterances with a command, such as one to save a file. In paragraph 51, the specification notes that the user may speak a command to open the file menu, followed by a command to execute the "save" menu option in the file menu. In paragraph 52, the specification states that the user may also associate a single command at the top level of the utterance hierarchy to cause the same "save" command to be executed. Thus, the specification discloses an example of a multiple-to-one mapping from a member of a set of internal representations (e.g., utterances) to a member of a set of output strings (e.g., commands).

By contrast, Hanson's "templates" (Hanson, FIG. 3, refs. 44 and 46) do not correspond to a multiple-to-one mapping from a set of internal representations to a member of a set of output strings. Hanson discloses that "[e]ach template is related to *a command* which in turn also is stored as keypresses." (Hanson, col. 7, lines 43-44.) Thus, Hanson describes a *one-to-one* mapping between templates and commands. Hanson does not disclose, for example, that more than one template could be related to a single command. Therefore, Hanson did not disclose this limitation, nor would Hanson's disclosure have made this limitation obvious .

All of the dependent claims are patentable for at least the reasons for which the claims on which they depend are patentable.

Canceled claims, if any, have been canceled without prejudice or disclaimer.

Any circumstance in which the applicant has (a) addressed certain comments of the examiner does not mean that the applicant concedes other comments of the examiner, (b) made arguments for the patentability of some claims does not mean that there are not other good reasons for patentability of those claims and other claims, or (c) amended a claim does not mean that the applicant concedes any of the examiner's positions with respect to that claim or other claims.

Applicant : Thomas R. Firman
Serial No. : 09/852,049
Filed : May 9, 2001
Page : 14 of 14

Attorney's Docket No.: 10591-003009

Enclosed is a \$120 check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050, reference 10591-003009.

Respectfully submitted,

Date: 12/12/05



Thomas A. Brown
Reg. No. 54,619

Fish & Richardson P.C.
225 Franklin Street
Boston, MA 02110-2804
Telephone: (617) 542-5070
Facsimile: (617) 542-8906